



## DEPARTMENT OF AUTOMOBILE ENGINEERING

### VISION

*“To develop technically skilled engineers with value-based education in automotive industry to face upcoming chances”.*

### MISSION

- *Understanding the need for regional automotive industries.*
- *Provide hands on skills for life long professional development.*
- *To create responsible students with sense of ethics & discipline.*

**Subject Name: Advanced Engine Technologies (314341)**

**Date :-**

**Assignment No :- 1**

**Course Outcome: 402.1**

**Topic Name :- Engine Combustion and Alternative Fuels**

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- 1. Define Ignition Lag.***
  - 2. Define Ignition limit***
  - 3. Classify of Combustion***
  - 4. Define detonation and its effects***
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**Date of Submission:-**

**Assign By :- Mr. Vishal Sagvekar**



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**Subject Name: Advanced Engine Technologies (314341)**

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**Assignment No :- 2**

**Course Outcome: 402.2**

**Topic Name :- Engine Fuel Management**

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- 1. List of actuators & their location & function***
  - 2. List input & output of ECM***
  - 3. Name of Sensors used in MPFI engine***
  - 4. Differentiate between Carburetor & Electronic fuel injection***
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**Subject Name: Advanced Engine Technologies (314341)**

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**Assignment No :- 3**

**Course Outcome: 402.3**

**Topic Name :- Advances In Automobile Engines**

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***1. Explain Turbocharger with waste-gate boost control.***

***2. Explain Variable Geometric Turbocharger VGT.***

***3. Explain Variable Valve Timing mechanism VVT.***

***4. Explain Gasoline Direct Injection GDI.***

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Assignment No :- 4

Course Outcome: 402.4

Topic Name :- Engine Performance

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- 1. Define Indicated power, Brake power and Frictional power***
  - 2. Define Efficiencies - Air standard, Mechanical, Brake Thermal, Indicated Thermal, Volumetric and Relative.***
  - 3. State Construction and working of Eddy current dynamo meter***
  - 4. Draw Heat Balance sheet with formulas.***
- 

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**Subject Name: Advanced Engine Technologies (314341)**

**Date :-**

**Assignment No :- 5**

**Course Outcome: 402.5**

**Topic Name :- Fuel Economy and Emission control**

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- 1. Explain the working of PCV system with neat sketch***
- 2. Explain evaporative emission control system***
- 3. Explain the working computer controlled EGR system***
- 4. List down the pollutants from gasoline engine and diesel engine***

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